

# INSTRUCTIONAL EQUIPMENT REQUEST

RECEIVED

OCT 20 2016

VP ACADEMIC SERVICES  
LAS POSITAS COLLEGE

2016-2017

Internal Use

IE #: Fall 41

Total \$: 6,387.14

Requester Name: Scott Miner

Division Name: CATSS

## SECTION 1: SUMMARY INFORMATION

### Brief Title of the Request:

Wire Feeder Welding Power Source #E

Equipment Location Building: 800

Room: 810

## SECTION 2: EQUIPMENT DESCRIPTION

The equipment is:  A Replacement  An Upgrade  New Equipment/Technology

Describe the specific equipment requested and how it will be used to replace, upgrade or provide new technology to LPC from what is currently in place:

Wire feeder welding power supply that is used in a student welding workstation. Used for Gas Metal Arc Welding (GMAW) and Flux Cored Arc Welding (FCAW). The new machine requested would allow use to expand the use in the lab following the completion of our electrical outlet expansion project which added ten new 220V receptacles into the room. Currently we have 6 of the wire feeder machines similar, but older than the ones requested. In a class of 24 students, that only leaves one machine per 4 students. Our eventual goal is to have a least enough wire feeder welding machines to bring down the ratio 2 students per wire feeder welding machine.

If applicable, describe the legal requirement, mandate, or safety concern for purchase of this equipment, making specific reference to the legal requirement or regulation:

N/A

## SECTION 3: LPC MISSION STATEMENT AND LPC PLANNING PRIORITIES

### LPC MISSION STATEMENT:

LPC is an inclusive learning-centered institution providing educational opportunities and support for completion of students' transfer, degree, basic skills, career-technical, and retraining goals.

### LPC PLANNING PRIORITIES:

- ❖ Establish regular and ongoing processes to implement best practices to meet ACCJC standards.
- ❖ Provide necessary institutional support for curriculum development and maintenance.
- ❖ Develop processes to facilitate ongoing meaningful assessment of SLOs and integrate assessment of SLOs into college processes.
- ❖ Expand tutoring services to meet demand and support student success in Basic Skills, CTE, and Transfer courses.

### Specify how the equipment supports *LPC's Mission Statement and Planning Priorities:*

Mission - Used to support students in the area of Career Technical Education, transfer, degree and retraining goals.

Priorities - Replacement of the existing equipment provides the necessary institutional support to maintain curriculum. Meaningful course and program level SLO's are completed with the existing machines. The SLO's are to complete an Industry Standard Welding Certification Test. Students use these machines to practice welding similar to a computer is to a coding class. The practice of the students in conjunction with coaching from others represents the CTE version of tutoring.

## SECTION 4: EDUCATIONAL ITEMS – PROGRAM REVIEW

### Specify the educational programs this equipment supports:

Welding Technology

If this equipment is included in your Program Review, please include the exact wording. If equipment is not included, explain why:

"World Class Welding Instruction - Continuous Improvement"

"Extensive use of Welding Procedure Specifications (WPS) and Standardized Testing for Midterms and Finals in most courses"

"One area of constant concern and need is to make sure that the equipment we use in all of our CTE programs are safe to use and similar to that in our respective trade, so that students are prepared for the proper workplace environment"

## SECTION 5: TEACHING AND LEARNING

### Describe in detail the impact this equipment will have on teaching:

This machine will allow teaching of current equipment used in industry, along with advanced features, will help prepare the students for current and future careers. The controls on the new equipment is much simpler and easier to teach a student to operate. The machine has the ability to track welding data that is also impossible to do with our existing machines.

### Describe in detail the impact this equipment will have on learning:

This machine will allow learning on current equipment used in industry. The controls are logical and easy for the students to understand. The new wire feeder will compliment 6 other machines in the room so adding capacity of wire feeders to workstations now increases access for everyone in the lab space. Students can study the data that the machine collects.

Each academic year, this equipment will impact: 50+ # of classes/sections 500+ # of students

## **SECTION 6: OUTCOMES (SLOs)**

**Using your documented SLOs, specify how the equipment will enable student learning outcomes to be achieved?**

This equipment is used to complete COURSE level SLO's in more than 75% of the welding courses. This equipment is used to complete one of our three PROGRAM level SLO's as well. Passing an Industry Standard Welding Certification Test

**What are the consequences related to learning outcomes if request is not funded?**

Students will continue to attempt weld testing using the other equipment. Extended wait times in the lab due to inavailability of the existing equipment. These existing machines see some of our heaviest usage in our welding lab environment.

## **SECTION 7: TOTAL COST OF OWNERSHIP (FINANCIAL & SUSTAINABILITY)**

**What is the potential life span of the requested equipment?**

The existing equipment is more than 8 years old, and the equipment on this request should last from 10-20 years based on usage.

**If new storage is needed, describe the storage, location, and costs: (Specific storage costs should be detailed in the "Part A: Initial Start-up Costs" section below.)**

N/A

**What will be required to maintain the equipment, such as regular servicing or upkeep? (Specific on-going costs should be detailed in the "Part B: On-Going Annual Operating Costs" sections below as applicable.)**

Minor occasional maintenance , should operate trouble free for years

**Explain how this equipment meets or exceeds basic sustainability efforts and/or provides renewable resources to the college:**

The machine is made from materials that can be 100% recycled at the end of its usable lifespan. The old machine will be 100% recycled. All of the Steel, Aluminum and Stainless Steel that students use with this machine is recycled as well. The new machine will draw about 15% less power than the existing machines of similar type due to the updated technology.

**Part A: Initial Start-up Costs**

<u>Item</u>	<u>Cost</u>	<u>Comments</u>
Equipment or Materials	5,833.00	
Taxes (9.5%)	554.00	
Shipping or Delivery Charge	0.00	
Installation Costs *	0.00	Instructor & Technician installed
Miscellaneous Costs:		
Facilities Modifications		
Operator Training		
Maintenance & Repair Training		
Other:		
Vendor Discount		
<b>Grand Total:</b>		<b>6,387.00</b>

**Part B: On-Going Annual Operating Costs**

<u>Item</u>	<u>Cost</u>	<u>Comments</u>
Annual Service or Maintenance	0.00	
Estimated Parts Replacement Per Year	0.00	
Outside Standardization or Calibration Costs	0.00	
Storage Costs	0.00	
New Supply Costs	0.00	
Miscellaneous Costs:	30.00	feed rolls wear over time
Maintenance & Repair Labor		
Other:		
<b>Annual Operating Costs:</b>		<b>30.00</b>

**Indicate the source of funding for on-going annual operating costs:**

Department Supply Budget

**Part C: Incremental Labor Costs**

**OPERATOR:**

Indicate the key operator: Students & Instructors

Is this in their current scope of duties? Complete Educational Goals

Indicate cost to train key operator (include in Initial Start-up Costs above): 0

Indicate amount of time per month key operator will use equipment: 160+ Hours

**MAINTENANCE & REPAIRS:**

Indicate the person performing maintenance and repairs: Welding/Auto Department Technician

Is this in their current scope of duties? Yes

Indicate cost to train for maintenance and repairs: 0

Indicate amount of time per month maintenance will be required: less than 15 minutes

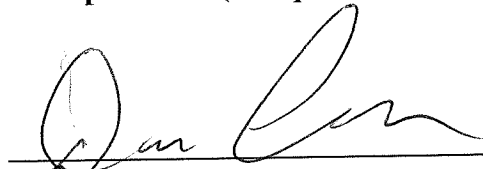
**SECTION 8: APPROVALS**

Funded requesters will be expected to respond to a brief RAC feedback survey by a requested deadline.  
Requests for computer-related equipment and printers must be reviewed by the LPC IT Department.

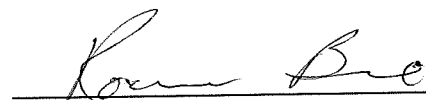
Signatures:

  
Requester

10/17/16  
Date

IT Department (if required)  
  
Dean/Manager

\_\_\_\_\_  
Date  
10/20/16  
Date

  
Vice President

10/29/16  
Date





**QUOTE**

Tracking Number

Quote Date

10/14/2016

ALLIANCE/JANCO W/S  
501 Auzerais Avenue  
San Jose, CA 95126  
408-271-3800  
408-271-3813 (FAX)

ALLIANCE W/S  
800 Greenville Road  
Livermore, CA 94550  
925-449-9353  
925-449-9356 (FAX)

ALLIANCE/ATLAS W/S  
1224 Sixth Street  
Berkeley, CA 94710  
510-524-5117  
510-524-9098 (FAX)

ALLIANCE/CONTRA COSTA W/S  
1135 Erickson Road  
Concord, CA 94520  
925-685-8921  
925-685-8928 (FAX)

Ship To:

CHABOT LOS POSITAS
SCOTT MINER
-

Issued By: LHUTTON

Location: LIVERMORE

ITEM	QTY	PART #	DESCRIPTION	PRICE	EXTEND
<del>1</del>	<del>1</del>	<del>LIN-K2675-2</del>	<del>POWERWAVE C300 BASE MODEL</del>	<del>\$ 5,076.00</del>	<del>\$ 5,076.00</del>
2	1	LIN-K2774-2	POWERWAVE C300 STL READY PAK	\$ 5,833.00	\$ 5,833.00
<del>3</del>	<del>1</del>	<del>MIL-907514003</del>	<del>DYNASTY 280 DY W/INSIGHT</del>	<del>\$ 4,978.89</del>	<del>\$ 4,978.89</del>
4					
5					
6				\$ -	\$ -
7				\$ -	\$ -
8				\$ -	\$ -
9				\$ -	\$ -
10				\$ -	\$ -
11				\$ -	\$ -
12				\$ -	\$ -
13				\$ -	\$ -
14				\$ -	\$ -
15				\$ -	\$ -
16				\$ -	\$ -

	SUB TOTAL	\$ <del>15,887.89</del>
	DELIVERY CHARGE	\$ -
	SALES TAX	
	<b>TOTAL</b>	<b>\$ <del>15,887.89</del></b>

**NOTES:**

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\* This quotation is good for 30 days from the date shown above

[www.alliance.ws](http://www.alliance.ws)

**Service Only A Small Business Can Provide**

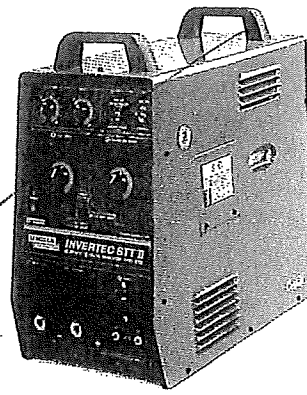




## Invertec<sup>®</sup> STT<sup>®</sup> II

Excellent Penetration, Higher Productivity

- Minimal spatter; can replace TIG welding in the root pass
- Controlled low heat input results in reduced distortion on thin materials
- Tremendous shielding gas flexibility (either low-cost 100 % CO<sub>2</sub> or Argon/CO<sub>2</sub> blends)



Processes  
• MIG-STT<sup>®</sup>

Output



Input



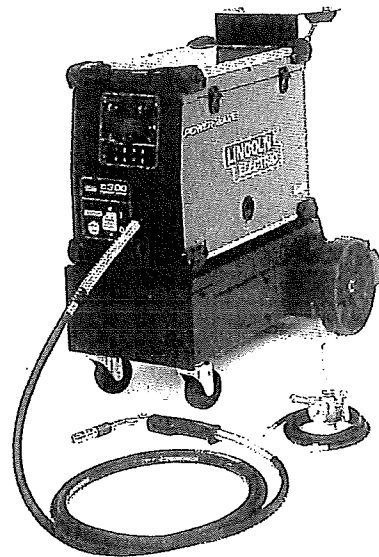
Literature  
E4.52

Product Name	Product Number	Input Power Voltage/Phase/Hertz	Rated Output: Current/Voltage/Duty Cycle	Input Current @ Rated Output	Output Range	H x W x D in (mm)	Net Wt. lb (kg)
Invertec <sup>®</sup> STT <sup>®</sup> II	K1525-1	208/230/460/3/60	225A/29V/60% 200A/28V/100%	32/30/16A	CURRENT Peak: 0-450A  Background: 0-125A  Max OCV: 85V	23.2 x 13.2 x 24.4 (589 x 336 x 620)	117 (53)
	K1526-1	200-208/220-230/ 380-415/440-460/3/50/60		33/30/15/17/16A			
	K1526-2	200/208/380/400/ 415/3/50/60		36/34/20/19/18A			

## Power Wave<sup>®</sup> C300

Power and Wire Combined

- Welding output remains constant throughout the entire input voltage range
- CheckPoint<sup>™</sup> technology enables you to track usage, store weld data, configure fault limits and more
- Ideal for educational settings and light to medium fabrication shops



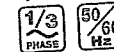
Processes

- Stick
- DC TIG
- Pulsed DC TIG
- MIG
- Pulsed MIG
- Flux-Cored

Output



Input



Literature  
E5.100

Product Name	Product Number	Input Power Voltage/Phase/Hertz	Rated Output: Current/Voltage/Duty Cycle	Input Current @ Rated Output	Output Range	H x W x D in (mm)	Net Wt. lb (kg)		
Power Wave <sup>®</sup> C300 <sup>®</sup> Base Model	K2675-2	3-Ph 50/60: 208/220-230/380/415/460/575	300A/29V/40% 250/27V/100%	3-Ph/40% Duty Cycle: 30/28/16/14/11A	5-300A DC  WFS: 50-700 ipm (1.27-17.8 m/min)	18.8 x 14 x 24.8 (478 x 356 x 630)	100 (47.6)		
Steel Ready-Pak <sup>®</sup> Pkg.	K2774-2	1-Ph 50/60: 208/220-230		1-Ph/40% Duty Cycle: 53/48/29A				33 x 20 x 42 (838 x 508 x 1067)	180 (81.6)
Educational Ready-Pak <sup>®</sup> Pkg.	K2774-4								

<sup>®</sup>Wire Size Range, in.(mm) : Solid - 0.023-0.045 (0.6-1.2) ; Cored - 0.035-0.045 (0.9-1.2)





